Interim Soil Fumigation Method

Metam-Potassium and Metam-Sodium Sprinkler 4:00 a.m. Start Method

Introduction

Pursuant to Title 3, California Code of Regulations (3CCR) section 6452, DPR has approved interim use of the metam-potassium or metam-sodium[1] (metam, MITC) sprinkler 4:00 a.m. start application method within ozone nonattainment areas[2] (NAAs) for volatile organic compounds (VOCs).

Effective dates

The methods described below may be used for three years effective August 7, 2008 (expires on August 6, 2011), contingent on submittal of additional information to more accurately document the emissions from this fumigation method.

Restrictions

Effective August 7, 2008, expiring on August 6, 2011:

- The MITC sprinkler 4:00 a.m. start time is approved for use during May 1 – October 31 in the Sacramento Metro and South Coast ozone NAAs **and** the San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs, with restrictions.
- This fumigation method may be used anytime outside of ozone NAAs and within any ozone NAA outside the May 1 – October 31 period, consistent with all VOC fumigation method restrictions.
- The only restriction, other than labeling requirements, outside the May 1 – October 31 period, is to include field fumigation method code 1472 on pesticide use reports.

Findings

The emissions for this fumigation method are approximately 35 percent of the available MITC. DPR has assigned the following emission ratings to this method:

- Metam-sodium and metam-potassium sprinkler 4:00 a.m. start method: 35 percent.

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[1] Metam-potassium and metam-sodium generate methyl isothiocyanate (MITC).
[2] A map of California ozone nonattainment areas is available on the DPR Web site at http://www.cdpr.ca.gov/docs/emon/vocs/vocproj/maps/naa-statemap.pdf

Metam-Potassium and Metam-Sodium Sprinkler 4:00 a.m. Start Method, Continued

Findings (continued)

Low-emission application methods must achieve an emission rating of 28 percent or less. Therefore, this application method cannot be considered a low-emission method based upon the emission rating. However, this method can be considered a low-emission method if the maximum application rate is adjusted to a level that ensures the emission rate (emission rating multiplied by the maximum application rate) does not exceed 51 pounds of MITC per acre, equivalent to 290 pounds of metam-potassium active ingredient (A.I.) per acre or 260 pounds of metam-sodium A.I. per acre. Table 1 shows the equivalent product application rates.

Sacramento Metro and South Coast ozone NAAs, May 1 – October 31

The MITC sprinkler 4:00 a.m. start application method is approved for use, with the following restrictions during May 1 – October 31:

- Fumigations must start no earlier than 4:00 a.m.
- Two post-fumigation water treatments as specified in 3CCR section 6450.1(d)(2) must be applied.
- Pesticide use reports must identify these applications using field fumigation method code 1472.

San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs, May 1 – October 31

The 35 percent emission rating and an application rate limit support approval of this fumigation method. The MITC sprinkler 4:00 a.m. start application method is approved for use, with the following restrictions during May 1 – October 31:

- Metam-potassium application rate must not exceed 290 pounds A.I. per acre.
- Metam-sodium application rate must not exceed 260 pounds A.I. per acre.
- Fumigations must start no earlier than 4:00 a.m.
- Two post-fumigation water treatments as specified in 3CCR section 6450.1(d)(2) must be applied.
- Pesticide use reports must identify these applications using field fumigation method code 1472.

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Metam-Potassium and Metam-Sodium Sprinkler 4:00 a.m. Start Method, Continued

Table 1. Maximum product application rates in gallons per acre to meet low-emission MITC mass loss criteria of 51 pounds MITC per acre in the San Joaquin Valley, Southeast Desert, and Ventura NAAs during May 1 – October 31.

Metam Sodium Products					
Company	**Product Name**	**Reg No.**	**lbs ai/gal**	**Conversion factor[1]**	**Maximum application rate (gal/ac)[2]**
AMVAC	AMVAC Metam	5481-420-AA	3.18	0.8163	80
AMVAC	AMVAC Metam 426	5481-423-AA	4.26	1.0935	60
AMVAC	METAM SODIUM	5481-350-ZA	3.18	0.8163	80
AMVAC	VAPAM	5481-466-AA	3.18	0.8163	80
AMVAC	VAPAM HL	5481-468-AA	4.26	1.0935	60
Buchman Laboratory	BUSAN 1020	1448-85-AA	3.2	0.8214	80
Taminco, Inc.	Metam CLR 42%	45728-16	4.25	1.0909	60
Tessenderlo-Kerley, Inc.	SECTAGON 42	61842-6	4.22	1.0832	60
Metam Potassium Products					
Company	**Product Name**	**Reg No.**	**lbs ai/gal**	**Conversion factor**	**Maximum application rate (gal/ac)**
AMVAC	K-PAM HL	5481-483-AA	5.8	1.3154	50
Tessenderlo-Kerley, Inc.	SECTAGON-K54	61842-7-AA	5.8	1.3154	50

[1] $conversion\ \ factor = \frac{product\ lb\ MS}{gal} * \frac{73\ MITC\ mol.wt.}{129\ MS\ mol.wt.} * \frac{1 kg}{2.2046 lbs}$

[2] allowed application rate = (65.7kg MITC/ac)/(conversion factor)